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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/910,952 | 07/24/2001 | Duck Chul Hwang | 1567.1015/MDS/JGM | 3638 |
| 49455 | 7590 | 07/13/2006 | | EXAMINER |
| STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005 | | | WEINER, LAURA S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1745 | |

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------------------|-------------------------------------|
| Office Action Summary | Application No. 09/910,952 | Applicant(s) HWANG ET AL. |
| | Examiner Laura S. Weiner | Art Unit 1745 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 May 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 2-4,8-17,29-40 and 43 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 43 is/are allowed.

6) Claim(s) 2-4,8-17 and 29-40 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-13-06.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: ____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5-13-06 has been entered.

Response to Arguments

2. Applicant's arguments filed 5-13-06 have been fully considered but they are not persuasive.

The claims remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The reasons are discussed below.

The Declaration under Rule 132 filed 6-29-05 and the evidentiary table provided with the January 18, 2005 response has been received. It is agreed that this is one of the common ways to label viscosity but it is not the only way. Viscosity can be described by using units of Poise (P), Centipoises (cP), Millipascal (mPa), Centistokes (cK), Pa, etc. The units of viscosity needed to be present in the specification and the

claims when the application was filed. No units were present in the claims or specification. In addition, as seen in Exhibit A, Centipoises, Millipascal and Centistokes are equivalent and therefore, the units does not have to be cP as stated by applicant. Further addition, as seen in Exhibit B, is when the Examiner went on the internet to pull up density, the first chart that was found stated viscosity in units of Centistokes which is not cP units. Therefore, the rejection still remains.

Applicant argues that the Declaration under Rule 132 filed 10-2-03 was filed to declare the non-obvious of claimed ranges in that the range points for solvent concentrations of 30% and 70% were envisioned. The declaration has been reviewed. In regard to the non-obvious of claimed ranges, the rejections over Simon et al., Skotheim et al. and Dahn et al. have been withdrawn.

In regard to the solvent concentrations of 30% and 70% being envisioned, it is noted but nowhere in the specification is these concentrations cited. The specification on page 5, [0023], states that "it is preferable to use roughly between 20-80% by volume of the first and second solvent". Other ranges points mentioned are on pages 7-8, Tables 1-2 in which the first solvent is 40% and the second solvent is 60% or the first solvent is 50% and the second solvent is 50%. As stated in the Declaration, on page 2, #6, DuckChul Hwang performed the experiment in August 2003 which the data is shown in the Declaration. It was not until August 2003 that there was recognition to the criticality of moving the data points to 30/70. The specification was filed in 2001. Therefore, the rejection still remains.

In claims 4, 11, 33 and 37, there is no data points for the first solvent being between 20% to 30% by volume. There is no support for claiming 30% by volume as a range point. There is support for 20-80 % by volume or 20-40% by volume. Therefore, the rejection still remains.

In claims 12, 32 and 36, there is no support in the specification for the phrase "the second solvent is between 70% and 80% inclusively by volume of the electrolyte". There is no support for claiming 70% by volume as a range point. There is support for 20-80% by volume or 60-80% by volume. Therefore, the rejection still remains.

Claim Rejections - 35 USC § 112

3. Claims 2-3; 4, 8-9, 29-30; 10, 31-35; 11; 12-13; 14-17, 36-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claims 2,4, 10-12, there is no support for defining the viscosity with units of cP (centipoises). It is agreed that this is one of the common ways to label viscosity but it is not the only way. Viscosity can be described by using units of poise, centipoises, Pa, etc. The units of viscosity should have been present in the specification and claims when the application was filed.

In claims 4, 11, 33 and 37, there is no support in the specification for the phrase "between 20% inclusively and 30% by volume of the electrolyte". There is no support for claiming 30% by volume as a range point. There is support for 20-80 % by volume or 20-40% by volume.

In claims 12, 32 and 36, there is no support in the specification for the phrase "the second solvent is between 70% and 80% inclusively by volume of the electrolyte". There is no support for claiming 70% by volume as a range point. There is support for 20-80% by volume or 60-80% by volume.

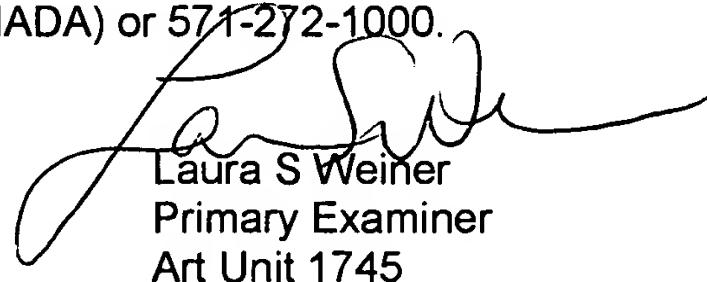
Allowable Subject Matter

4. Claim 43 is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Laura S. Weiner
Primary Examiner
Art Unit 1745

June 20, 2006